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Before the

Public Safety National Coordination Committee
Federal Communications Committee

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Good Morning. On behalf of the Police Department of the City of New York, thank you for the opportunity to participate in this meeting of the Public Safety National Coordination Committee (NCC). The Committee's meeting comes at an extremely challenging time. The response, courage and sacrifice of public safety personnel on September 11th are without parallel. The importance of reliable communications to

sustain that effort should not be overlooked. The challenge is to maintain that level of readiness in the face of uncertainty.

Although the focus of my presentation will be on the communications aspect of the September 11th disaster, I would like to take a moment to paint a picture of heroism for you. A high ranking NYPD official who responded to the scene mentioned to me how an image is forever etched into his mind; an image of women's shoes, by the dozens, on the ground leading away from the towers, after the attack but prior to the collapse. Just picture this for a moment: in the wake of the attack, people were running for their lives, to the point that they ran right out of their shoes in their effort to flee the area. Yet while all these people were running out, brave police officers, firefighters and rescue workers ran **into** the buildings, in an effort to save lives. Ladies and gentlemen, there is no more heroic act than that performed by these rescue workers on that day. And although close to 5,000 innocent people tragically perished as a result of this barbaric act, these brave rescue workers led some 20,000 – 25,000 people to safety. Their actions were phenomenal; our City and our nation will forever be in their debt.

It should be noted that a reliable communications system played a critical role in the ability of rescue workers to communicate with each other and orchestrate the rescue. I would now like to address some salient points about that communications infrastructure.

We did not expect a tragedy of such magnitude, but we were prepared to handle it. We did not anticipate such a horrific act, but we were ready to respond. How?

- Disaster planning. The Communications Division has disaster plans that are constantly revised and drilled. Regular testing of established procedures assures continuity of communications**.**
- Tabletop drills are utilized to help prepare for the unexpected. Supervisors are critiqued so that they may learn from their mistakes. Supervisors are also encouraged to be creative in developing solutions to unusual problems. These drills help assure that staff members are aware of all available resources and options.
- Deployment planning is consistently developed and revised. This includes scheduling for increased support, implementation of transportation plans in the event of interruptions in mass transportation services, etc.
- Top notch, empowered managers are in place. These managers are encouraged to try new methods to continuously improve performance.
- Dedicated, well-trained staff helped us stay the course.
- **Redundancy, diversity and more redundancy**: It is important to recognize that redundancy and diversity is not the same thing. For example, if you have two separate cables, yet both follow the same path at any point, you have redundancy, but not diversity. If that common point is disrupted, all communications will be lost. It is imperative to have both redundancy and diversity and to eliminate single points of failure.

Our primary objective is to help maintain the public safety and officer safety by keeping the lines of communication open. This objective was complicated by a domino effect in

the wake of the September 11th attacks. When the terrorists struck the Twin Towers, I am convinced they had no idea of the ramifications the destruction would have on New York City's communications infrastructure. The destruction of the towers caused the loss of major antennae, as well as underground communications cabling. The domino effect resulted with the collapse of the North Tower, which caused fire and extensive damage to the 7 World Trade Center building across the street, which ultimately led to the collapse of that structure. The collapse of that structure, in turn, caused significant damage to the adjacent Verizon Central Office at 140 West Street, causing massive loss of critical telephone and data circuits, including those feeding E-9-1-1. Without careful planning and disaster recovery procedures, the E9-1-1 and radio operations could have been gravely affected by these outages.

Instead, the call taking and dispatch operations were only minimally affected, which was a significant achievement under such catastrophic conditions. The NYPD set into motion disaster recovery plans that had been established for years and repeatedly tested and rehearsed, but only rarely implemented. Working 24 hours a day with Verizon and partners like Motorola and iXP, the Department's E-911 systems integrator, the Department experienced the indisputable value of multi-layered redundancy, diversity and testing principles as applied to the design of New York City's E9-1-1 infrastructure.

The bottom line is that we lost a key radio transmitter on one of the World Trade Center towers and we lost the West Street Central Office. Telephone service, both landline and wireless, was lost throughout the area. Yet we never lost 9-1-1 service or radio communications. Why? We maintained continuity because of redundancies, diversity and, in the case of radio, our ability to exercise exclusive control over a substantial portion of our infrastructure. This is an important point, because some have been pushing public safety agencies toward utilization of commercial networks for public safety communications. Had that been the case in New York City, law enforcement would have been operating deaf and blind in the wake of the disaster. Commercial wireless service was non-existent, or sporadic at best. Our radio network was never lost.

The NYPD's reaction to the perilous condition of the communications infrastructure was aided by warnings from Verizon about the tenuous condition of its central office. As a result of this warning and our awareness of the proximity of critical communications components to ground zero, we were able to anticipate and improvise. Through some ingenious engineering wizardry by our technical staff, we were able to re-route signals sufficiently to avoid any loss of radio communications.

The point I made about contact with Verizon is a critical one. As public safety officials, we must know our vendors and service providers. It is imperative to keep channels of communication open. We need to ask questions and test everything. Vendors can be, and were, tremendous allies. However, public safety agencies must remember that they are the customer and the boss. Vendors can advise, help row the boat and even help bail out a boat in troubled waters. However, public safety officials must steer the course and set the policy. Constant command and control is imperative.

It should be noted that in the aftermath of the tragedy, Motorola, Verizon, AT&T, Voicestream, Nextel, Cingular, Datamaxx, Cisco, Time Warner, iXP and other vendors rendered significant assistance in the re-establishment of critical communications. The private sector can be a critical partner in times of crisis**.**

It is important to maintain channels of communication, not just with vendors, but also between communications staff and operational units. Operational needs must be ascertained and creative solutions need to be delivered. Communications personnel also need to be familiar with the key infrastructure and need to work with operational units to assure the security of key facilities. A list of priority sites should be maintained and revised, as appropriate.

The human element is also important. Despite being less than 2 miles from ground zero, and knowing that government buildings were being evacuated, call takers and radio dispatchers held their positions and did their jobs. Despite dealing with mind-numbing, harrowing calls from panicked victims and radio dispatches from officers in distress, our personnel maintained their composure and did a tremendous job under the most trying of circumstances. To put this in perspective, the NYPD's 9-1-1 operation receives an average of more than 30,000 calls per day, totaling more than 11.5 million a year. During the first ten minutes following the attack, call takers handled 3,000 calls. By the end of the day, 9-1-1 operators handled more than 55,000 calls.

During stressful times and events of extreme duress, outlets for relief must be provided. We attempted to address this through management reassurance, on-site counseling and facilitation of group discussions. Union leadership stepped up to help provide counseling immediately following the tragedy. This is another example of cooperation. We handled this disaster through cooperation between the public and private sectors, communications and operational staff, civilian and uniformed members of the service, labor and management and, not the least of which, inter-agency cooperation - local, state and federal**.** I will leave it to the Mayor's Office of Emergency Management and Chief Peter Meade of Nassau County to discuss the various critical aspects of inter-agency cooperation. Suffice it to say that we made every effort to establish command, control, communication, coordination and cooperation to get us through the crisis.

As you could well imagine, the NYPD's radio system was put to the test during the events of September 11th. With 76 precincts and more than 50 specialized commands, the NYPD maintains the largest public safety radio system on the continent. This system is a complex network that utilizes 126 transmitters and more than 1,400 receivers, at more than 350 sites. The system is designed to provide overlapping coverage to mitigate the loss of multiple receivers and still maintain an acceptable level of coverage. The radio system serves approximately 24,000 portable radios, 2,000 mobile radios and 2,200 Mobile Data Terminals. The Department utilizes 15 citywide channels, 8 patrol borough channels and 6 interoperability channels.

Radio channels were allocated to the responding teams and became crowded with desperate calls from trapped and responding officers. The radio channels were also used to provide interagency communications to coordinate the response of the many law enforcement agencies from the metropolitan area that responded to the attack. Unfortunately, however, it became apparent during the disaster that protocols for interoperability have not yet been adequately promulgated. We are working through the New York Metropolitan Advisory Council (NYMAC) to rectify this matter.

Despite the failure of virtually all forms of communications in the hours following the disaster, the NYPD's radio system remained operational at all times. This was a direct result of thorough planning and implementation that incorporated many levels of redundancy and diversity into the system, as well as the dedicated engineering and repair performance of the Department's skilled staff at the Electronics Section. However, not all issues relating to maintenance of the integrity of our radio network are within the control of the NYPD.

The September 11th attack highlights the critical need for exclusive public safety communications systems that ensure secure, quality transmission and reception. These elements were an important part of NYPD's response and readiness. The era of heightened security that we have now entered emphasizes this fundamental even more.

The NCC is to be commended for its diligent and highly competent work, which will lead to tangible benefits for public safety communications. The NCC's role of addressing and advising the Federal Communications Commission (FCC) on the operational and technical parameters for using the 700 MHz public safety band that has been committed by the FCC is a vital one. That the NCC and its Subcommittee have accomplished so much is a tribute to its leadership and members' dedication to public safety. Your work will truly make a difference.

The FCC should also be commended. Beyond its allocation of the 700 MHz spectrum to public safety and sponsoring this committee's work, its actions since September 11, 2001 have been essential. The FCC's Public Safety and Private Wireless Division has assisted a number of New York metropolitan area public safety agencies in obtaining Special Temporary Authority to conduct wireless communications. Additionally, the FCC's Enforcement Bureau has consistently responded expeditiously to interference challenges that agencies in the New York metropolitan area have encountered.

The 700 MHz spectrum commitment is important. However, when it will actually be available is open to considerable conjecture. The imperative to note is that 700 MHz is not available to respond to **current** demands – and the current reality is that we are in a state of war. No one seriously suggests that the transition to digital television will be completed even by 2006, the time period originally set. In the New York metropolitan

area, the September 11th attack will likely add further delay, due to the loss of critical infrastructure atop the Twin Towers. Television broadcasters are not going to be in a position to move out of 700 MHz, specifically channels 63/64 & 68/69, prior to 2006. The delay is real and the harm that will accrue substantial. The New York metropolitan area remains highly congested, and a range of agencies face severe limitations in carrying fundamental law enforcement and public safety communications. Additionally, there are a number of circumstances that infringe directly on effective public safety use of the currently allocated spectrum.

Public agencies in the New York metropolitan area face serious challenges to effective utilization of existing resources. Since the 1970's, the NYPD has broadcast on frequencies located on Channels 14 (470-476) and 15 (476-482) in the 400 MHz range. In 1995, the FCC made a substantial and critical commitment to public safety in the New York metropolitan area when it authorized the use of TV Channel 16 (482-488) for public safety communications. The Commission determined that not only was there an urgent and immediate need for additional spectrum for public safety agencies in the New York metropolitan area, but that granting the authorization would be accomplished without affecting existing TV operations or digital TV.

As a result of the authorization to use Channel 16, public safety agencies have expended millions of dollars to enhance communications systems that have served to improve police response time and provide more information to the officer on the street. As a result, the public is assisted faster and the responding officer arrives with greater insight as to the circumstances faced. The NYPD has constructed and implemented embedded systems and interoperability channels on Channel 16 that are vital to providing logistical and command support during daily operations and major emergencies. The viability of the allocated public safety frequency spectrum is critical to ensure that public safety communications systems operate as intended. There can be no dispute that the public safety is paramount to commercial interests.

However, this critical public safety use of Channel 16 is threatened, particularly by low power television broadcasts (LPTV). These intrusions threaten not only the substantial investments made by local government to the infrastructure and equipment, but recklessly endanger both the public and the public safety officers upon whom the public depends. There is a clear and compelling need to establish the primacy of Channel 16 for public safety communications in the New York metropolitan area.

This issue has an impact that goes beyond the NYPD. As I indicated earlier, Channel 16 is the frequency used for, amongst other things, critical interoperability channels. Similarly, being faced with the critical need to improve its communications system, the Nassau County Police Department has submitted an application to the Commission to operate a public safety communications system on 500-506 MHZ frequencies, which has been allocated but not used, for Channel 19 television operations in the New York metropolitan area**.** Nassau County's need to improve its communications capability is real and severe. Without the relief sought by Nassau County, the circumstances will degenerate further. This frequency is already in use by public safety agencies in Northern

New Jersey; a proposal for use of Channel 19 by an LPTV in Amityville, NY would disrupt that critical usage. I encourage the Commission to grant Nassau County's application expeditiously.

In short, there are parochial interests that threaten the public safety communications in the 470-512 MHz band, a principal band for public safety communications in the New York metropolitan area. These interests assert precedence over the state, county and local investment made in the public safety communications infrastructure and the critical communications this infrastructure affords. There should be no misunderstanding where these interests will lead: Public safety communications links for several jurisdictions throughout the New York metropolitan area will be jeopardized or severed. If this threat to public safety communications in the 470-512 MHz range is not eliminated, the detriment will be tangible and substantial.

The positive resolution of these issues will permit the NYPD, FDNY, Nassau County and other agencies to be on the same UHF radio range, allowing for the expanded use of Channel 16 interoperability channels. Positive action will also ensure continuity of the region's wireless communications and will make them more effective. In these troubled times, it is fair to say that few issues on the FCC's agenda hold such significance for public safety and national security.

Before I close, I want to acknowledge the presence of Captain Kenneth Weinberg, Commanding Officer of the Electronics Section, which is responsible for the NYPD's radio operations. Through Captain Weinberg's leadership, vision, commitment and dedication, the NYPD Radio Shop staff has continued to develop and maintain a world class, robust and reliable radio network. Captain Weinberg will be available to answer questions, should time permit.

On behalf of the NYPD, I want to thank you for all you have done, and will no doubt continue to do, to help assure continued public safety. Thank you all, God bless you and God Bless America.